

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR 99/02569

PTO

JC929 U.S. PTO  
09/04/2004  
04/23/01

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06K7/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 681 111 A (SILVIAN SERGIU) 21 July 1987 (1987-07-21)	1,4,5, 7-11
Y	column 1, line 5-33; figures 6,13,14,17	6
A	column 3, line 41-66	9
	column 5, line 3-28	
	column 9, line 52 -column 10, line 23	
Y	EP 0 299 639 A (DAVID SYSTEMS INC) 18 January 1989 (1989-01-18)	6
	column 4, line 38-44; figure 1	
X	US 4 786 903 A (GRINDAHL MERVIN L ET AL) 22 November 1988 (1988-11-22)	1,8-10
	column 4, line 15 -column 5, line 21;	
	figure 1	
	---	
	-/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority 'claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

3 April 2000

Date of mailing of the international search report

07/04/2000

## Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Cardigos dos Reis, F

**THIS PAGE BLANK (USPTO)**

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR 99/02569

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G06K7/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 681 111 A (SILVIAN SERGIU) 21 July 1987 (1987-07-21) column 1, line 5-33; figures 6,13,14,17 column 3, line 41-66 column 5, line 3-28 column 9, line 52 -column 10, line 23 ---	1,4,5, 7-11
Y	EP 0 299 639 A (DAVID SYSTEMS INC) 18 January 1989 (1989-01-18) column 4, line 38-44; figure 1 ---	6
X	US 4 786 903 A (GRINDAHL MERVIN L ET AL) 22 November 1988 (1988-11-22) column 4, line 15 -column 5, line 21; figure 1 ---	1,8-10 -/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

3 April 2000

Date of mailing of the international search report

07/04/2000

## Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Cardigos dos Reis, F

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/FR 99/02569

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 699 066 A (VAN ZYL CLINTON AIDEN ET AL) 16 December 1997 (1997-12-16) column 1, line 49 -column 2, line 40; figures 1,2,8 column 3, line 63 -column 4, line 3 ---	1,2,8-10
Y	US 5 252 962 A (ELLWOOD DAVID ET AL) 12 October 1993 (1993-10-12) column 6, line 17-31; figures 2,3B ---	1,2,8-10
A	US 4 935 736 A (MEIERDIERCK CHARLES) 19 June 1990 (1990-06-19) column 8, line 41 -column 9, line 22; figures 2,4 column 13, line 10-31 ----	1
A	US 5 598 446 A (VAN DER TUIJN ROLAND M M H) 28 January 1997 (1997-01-28) column 2, line 58 -column 3, line 18; figure 3 -----	2

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR 99/02569

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4681111	A	21-07-1987	EP	0216903 A	08-04-1987
			JP	5066827 B	22-09-1993
			JP	62502666 T	15-10-1987
			WO	8605675 A	09-10-1986
EP 0299639	A	18-01-1989	NONE		
US 4786903	A	22-11-1988	NONE		
US 5699066	A	16-12-1997	AT	171547 T	15-10-1998
			AU	670402 B	11-07-1996
			AU	1653095 A	29-06-1995
			AU	656088 B	19-01-1995
			AU	4494093 A	03-03-1994
			CA	2104829 A	27-02-1994
			CN	1088371 A,B	22-06-1994
			DE	69321179 D	29-10-1998
			DE	69321179 T	06-05-1999
			EP	0585132 A	02-03-1994
			ES	2121954 T	16-12-1998
			JP	7311263 A	28-11-1995
			SG	48262 A	17-04-1998
			US	5557280 A	17-09-1996
			ZA	9306267 A	14-04-1994
US 5252962	A	12-10-1993	AU	666062 B	25-01-1996
			AU	5501294 A	21-04-1994
			AU	660868 B	06-07-1995
			AU	5501394 A	28-04-1994
			AU	650891 B	07-07-1994
			AU	8154691 A	06-02-1992
			CA	2048385 A,C	04-02-1992
			CA	2189461 A	04-02-1992
			CA	2189462 A	04-02-1992
			CH	682782 A	15-11-1993
			DE	4125746 A	06-02-1992
			DE	4143560 C	15-01-1998
			DE	4143561 C	29-01-1998
			FR	2667206 A	27-03-1992
			GB	2249001 A,B	22-04-1992
			GB	2258588 A,B	10-02-1993
			GB	2258589 A,B	10-02-1993
			IT	1258003 B	19-02-1996
			JP	2747985 B	06-05-1998
			JP	7294636 A	10-11-1995
			JP	2747986 B	06-05-1998
			JP	7294637 A	10-11-1995
			JP	2709758 B	04-02-1998
			JP	4232886 A	21-08-1992
			NL	9101344 A	02-03-1992
			NZ	239190 A	25-11-1994
			NZ	248087 A	25-11-1994
			NZ	248088 A	25-11-1994
			US	5481262 A	02-01-1996
			US	5422636 A	06-06-1995
US 4935736	A	19-06-1990	US	5029271 A	02-07-1991

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR 99/02569

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5598446 A	28-01-1997	NONE	